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UNIVERSITY OF MARYLAND

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Summer School

June 25th--August 5th

1924

COLLEGE PARK, MARYLAND

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SPECIAL ANNOUNCEMENT

Conference on High School Music

A conference on teaching of music in the high schools will be held in conection with the summer school June 30th and July 1st under the joint auspicies of the State Department of Education and the College of Education. The State Supervisor of Music, the State Supervisors of High Schools, the Supervisor of Music of the Baltimore City Schools, the Director of the Summer School and others will assist in the program of the conference.

CALENDAR 1924-1925

June 14, 1924—Saturday—Commencement Day.

THE SUMMER SESSION

June 25—Wednesday—Registration, Agricultural Building.
June 26—Thursday—8.10 a. m., Instruction in the Summer Courses begins.
June 28—Saturday—Classes meet as usual.
July 4—Friday—Independence Day. University buildings closed.
July 5—Saturday—Classes meet as usual.
August 5—Tuesday—Close of Summer Courses.

THE COLLEGE YEAR

September 17-18—Entrance Examinations.
September 22-23—Registration for First Semester.
September 24—Classes begin. First Semester.
January 19-24—Registration for the Second Semester.
February 2-7—First Semester examinations.
February 9—Classes begin. Second Semester.
June 2-6—Second Semester examinations.
June 14, 1924—Commencement Day.

All Summer School instruction will begin promptly on Thursday morning, June 26, in conformity with the schedule on page 11.

Students may register, in advance, by mail prior to Saturday, June 16; after this date in person only. (See page 7).

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THE

UNIVERSITY OF MARYLAND

SUMMER SCHOOL

1924

Albert F. Woods	President of the University
H. C. Byrd	Assistant to the President
Willard S. Small	Director
Mrs. Paul Frank	Social Secretary and Advisor to Women
Maude F. McKenney	Financial Secretary
W. M. Hillegeist	Registrar
Alma Preinkert	Assistant Registrar
J. E. Palmer	Executive Secretary
Mrs. Gay Fairall	Secretary to the Director
H. L. Crisp	Superintendent of Buildings
T. A. Hutton	Purchasing Agent and Manager of Students' Supply Store

COMMITTEES

Woman's Advisory Committee:
Mrs. Frank, Mrs. Welsh; Misses Boyle, Houck and Anderson.

Saturday Excursions Committee:
Mr. Day, Mr. Hutton; Mrs. McFarland; Misses Barnes and Zouck.

INSTRUCTORS

Alimae Aiken, M. A., Teacher of Art, State Normal School, Harrisonburg, Va.	Education
Pearl Anderson, A. B., Instructor in Zoology	Zoology
Grace Barnes, A. B., Instructor in Library Science	Librarian
L. E. Blauch, Ph.D., Professor of Education, North Carolina College for Women	Education
W. Perry Bradley, Scout Executive, Baltimore Council, Boy Scouts of America	Education
O. C. Bruce, M. S., Professor of Soils	Geology
Elizabeth Boyle, Frederick High School	Education
Ray W. Carpenter, A. B., Professor of Agricultural Engineering	Agriculture
Lula Crim, A. M., Supervisor, Washington County	Education
Homer E. Cooper, Ph.D., Lately Superintendent of the Martland Casualty Company Training School	Education
H. F. Cotterman, B. S., M. A., Professor of Agricultural Education and Rural Sociology	Education
Frank D. Day, B. S., Elementary Agriculture	Education
C. G. Eichlin, A. B., M. S., Professor of Physics	Physics
E. E. Erickson, A. B., Instructor in English	English
G. Eppley, B. S., Professor of Agronomy	Agriculture
J. A. Gamble, M. S., Professor of Dairy Husbandry	Agriculture
F. W. Geise, M. S., Professor of Vegetable Gardening	Agriculture
B. L. Goodyear, B. S., B. Mus., Voice and Piano	Music
N. E. Gordon, Ph.D., Professor of Physical Chemistry and State Chemist	Chemistry
Edith Miller Haring, Assistant Supervisor of Music, Washington, D. C.	Education
Susan Harman, M. A., Assistant Professor of English	English
S. H. Harvey, B. S., Assistant Professor of Dairy Husbandry	Agriculture
H. B. Hoshall, B. S., Assistant Professor of Mechanical Engineering	Engineering
H. C. House, Ph.D., Professor of English and English Literature, Director of Choral Music	English
Helen R. Houck, M. A., Instructor in Education	Education
W. B. Kemp, B. S., Associate Professor of Genetics and Agronomy	Agriculture
M. Kharasch, Ph.D., Associate Professor of Chemistry	Chemistry
W. K. Klingman, A. M., Principal, Frederick High School, Frederick, Md.	Education
C. F. Kramer, A. M., Associate Professor of Modern Languages	French, German
J. F. Landis, B. S., Director of Physical Education, Perry Junior High School, Pittsburgh, Pa.	Education

Frederick Lee, Ph.D., Professor of Sociology..... Economics
Margaret Marshall, A. M..... Education
Frieda McFarland, A. B., Professor of Textiles and Clothing ..... Home Economics
Edna B. McNaughton, B. S., Professor of Home Economics Education ..... Education
Ethel McNutt, Frederick High School, Frederick, Md..... Education
Devoe Meade, Ph.D., Professor of Animal Husbandry.... Agriculture
Marie Mount, A. B., Professor of Home and Institutional Management..... Home Economics
J. B. S. Norton, D. Sc., Professor of Systematic Botany and Mycology..... Nature Study
Nicholas Orem, A. M., County Superintendent, Prince George's County ..... Education
C. J. Pierson, A. M., Professor of Zoology..... Zoology
C. S. Richardson, A. M., Professor of Public Speaking and Extension Education..... Public Speaking
G. J. Schulz, A. B., Associate Professor of History..... History
Mary Francis Sidwell, A. B., Towson High School..... Education
Elizabeth Scharffetter, Fairland School..... Education
T. T. Taliaferro, C. E., Ph.D., Professor of Mathematics.... Mathematics
W. T. L. Taliaferro, A. B., Sc.D., Professor of Farm Management ..... Agriculture
Martha G. Temple, Hyattsville, High School.....Education
C. E. Temple, M. S., Professor of Plant Pathology..... Botany
T. B. Thompson, Ph.D., Professor of Economics..... Economics
A. S. Thurston, M. S., Assistant Professor of Floriculture ..... Agriculture
Hazel Wedgwood, R. N., Chief Nurse, Bureau of Child Hygiene, State Health Department..... Education
Claribel Welsh, B. S., Assistant Professor of Foods..... Home Economics
Ida Belle Wilson, A. M..... Education
R. C. Wiley, M. S., Associate Professor of Chemistry..... Chemistry
Ada E. Zouck, A. M., Instructor in Education..... Education
A. E. Zucker, Ph.D., Professor of Modern Languages..... French

GENERAL INFORMATION

The tenth session of the Summer School of the University of Maryland will open Wednesday, June 25th, 1924 and continue for six weeks, ending Tuesday, August 5th.

In order that there may be thirty class periods for each full course, classes will be held on Saturday, June 28th, and on Saturday, July 5th, to make up for time lost **registration day** and the **regular holiday July 4th.** The regular Wednesday schedule will be followed on June 28th and the regular Friday schedule on July 5th. There will be no classes or other collegiate activities held on July 4th.

The work of the Summer School was designed originally for rural teachers. Many persons, however, it has been found, desire to attend the University in summer to pursue courses in other lines of work. For this reason additions, both academic and professional in character, have been made gradually until the present program of studies includes courses for the teachers of the several classes of school work—elementary, secondary, and vocational; for special students, as farmers, breeders, dairymen, home makers, chemists, public speakers, graduate students; and persons who are candidates for degrees in agriculture, arts and science, education, engineering and home economics.

The instruction in the Summer School is free to all students of Maryland.

LOCATION

The University is located at College Park, in Prince George's County, Maryland, on the Washington Division of the B. & O. R. R., eight miles from Washington and thirty-two miles from Baltimore; and on the City and Suburban Electric Railway, eight miles from Washington, and twelve miles from Laurel.

The grounds front on the Baltimore and Washington Boulevard. The site of the University is healthful and attractive. The buildings occupy the crest of a commanding hill, covered with forest trees. It overlooks a broad valley and several suburban towns. In front, extending to the Boulevard, is a broad, rolling campus, the drill ground and athletic field of the students. East of the Boulevard is the new athletic field. A quarter of a mile to the northeast are the buildings of the Experiment Station.

TERMS OF ADMISSION

Teachers and special students not seeking a degree are admitted without examination to the courses of the summer session for which they are qualified. All such selection of courses, however, must be approved by the Director of the Summer School.

The admission requirements for those who desire to become candidates

for degrees are the same as for any other session of the University. Before registering, a candidate for a degree will be required to consult the Dean of the School in which the candidate wishes to secure the degree.

Regularly registered students who wish to attend the lectures or a portion of the lectures of courses without doing the work connected therewith are permitted to enroll in such courses as auditors with the consent of the instructor in charge.

REGISTRATION

Wednesday, June 25th, is Registration Day. Students should register on or before this date and be ready for class work on the morning of Thursday, June 26th. It is possible to register in advance and reserve rooms by applying to the Director of the Summer School. Students desiring to register by mail will use the enclosed registration card. When filled out this should be returned to the registrar's office accompanied by remittance of an advance fee of $5.00.

Most students find two full courses sufficient work for the Summer period. Students are urged to make application for no more than six credit hours. In no case will a student be granted credit for more than seven term credit hours work in the Summer School.

Unless otherwise stated, courses listed will be offered in 1924. Instructors will not be held for courses for which *less than five students apply.* For this reason applicants desiring content courses numbered from 101 to 199 and 101 S to 199 S should register at an early date by mail.

All course cards for work in the Summer School must be countersigned by the Director before being presented to the Registrar's office.

DESIGNATION OF COURSES

Courses numbered from 1 to 99 with an S before the number, as for example, Ed. S. 11, are special Summer School courses and are not offered during the regular collegiate year.

Courses numbered from 101 to 199 with an S following the number, as Eng. 101 S, are modifications, to meet Summer School conditions, of courses of the same number in the University catalogue.

Courses numbered from 101 to 199 without the S, as Agron. 191, are identical in every way with courses of the same symbol and number in the University catalogue.

Courses numbered from 201 and above are for graduate students only. Some of the courses numbered from 101 to 199 may be used for graduate credit by special arrangement.

The symbols—Eg., Eng., Ed., Agron.—refer to the subject matter grouping under which such courses are found in the general catalogue.

CREDITS AND CERTIFICATES

The semester hour is the unit of credit as in other sessions of the University. A semester credit hour is one lecture or recitation a week for a term, which is approximately seventeen weeks in length. Two or three hours of laboratory or field work are counted as equivalent to one lecture

or recitation. During the summer session a lecture course meeting five times a week for six weeks requiring the standard amount of outside work, is given a weight of two semester hours. All credit is listed as semester hours.

Educational courses satisfactorily completed will be credited by the State Superintendent of Schools toward meeting the minimum requirements of professional preparation as follows:

(1) For teaching in the elementary schools of the State, viz., at least six weeks' attendance at a school of pedagogy; a renewal of elementary teachers' certificates which requires six weeks' additional professional training for those of second and third grade; to meet the requirement for advancing the grade of elementary teachers' certificates.

(2) For teaching in high schools of the State and for renewal of high school certificates.

(3) For teachers of vocational agriculture and home economics and the renewal of vocational teachers' certificates.

(4) For high school principalships.

(5) For supervisorships.

SUMMER GRADUATE WORK

Special arrangements have been made for persons wishing to do graduate work in summer. By writing for the general University catalogue all of the regulations governing graduate work may be procured. The Master's degree represents full time work for one academic year. At least thirty semester hours, including a thesis, must be completed. Four Summer Sessions are considered the equivalent of an academic year. By carrying approximately seven semester hours of graduate work for four sessions and submitting a satisfactory thesis students may be granted the degree of Master of Arts or Master of Science. Teachers and other graduate students working for a degree on the summer plan must meet the same requirements and proceed in the same way as do students enrolled in the other sessions of the University.

ACCOMMODATIONS

Students are accommodated in the University up to the capacity of the dormitories.

Students who room in these dormitories will supply themselves with towels, pillows, pillow cases, sheets and blankets. No addition charge is made for rooms, but to secure them, early application should be made to the Director. Rooms may be reserved in advance, but will not be held later than noon of Thursday, June 26th.

Students who desire to live in private homes may be accommodated in College Park or in the nearby towns of Hyattsville, Riverdale and Berwyn. Most students, however, in the past have found it more convenient to room in the dormitories.

Board is furnished for all desiring it at the college dining hall.

EXPENSES

The expenses of the summer session, with the exceptions noted below, are covered by a single fee of $55.00. This includes registration, board, use of library and gymnasium, Janitor service, health service and general use of the University property.

The fee for students not boarding at the College Dining Hall is $15.00. Day students who stay for lunch only, will be served at the rate of thirty-five cents per meal.

A special fee which is specified in the description of certain courses is charged for the use of laboratory and other materials.

Students may have their laundry work done at the University laundry at a flat rate of $4.00 for the session.

One-half of the fees, including laundry and laboratory fees, must be paid upon registration, and the remainder at the beginning of the third week of the term.

No rebates will be allowed except in cases of withdrawal on account of illness or other unavoidable causes. Applications for rebates must be made to the financial office and approved by the Director.

Persons desiring to do graduate work will be charged $1.50 per credit hour and $10.00 for matriculation in the graduate school. After a student once matriculates in the graduate school, no further matriculation fees for summer graduate work are charged. The total fee for procuring a Master's degree on the summer plan, including matriculation fee, cost per credit hour and diploma fee need not exceed $65.00.

LIBRARY

The library is housed in a separate two-story building and contains 10,000 bound books and 5,000 United States Government documents, unbound reports and pamphlets. On the first floor is collected material relating to agriculture and related scientific subjects. The general reading room is on the second floor. All material is on open shelves where the students can easily locate it. Through the Inter-Library Loan System of the Library of Congress and other government-owned libraries the University of Maryland library is able to supplement its reference material by either borrowing books from these government libraries or by personal work in them.

The library is open from 8 a. m. to 5.30 p. m., Monday to Friday inclusive, and on each of these evenings from 6.00 p. m. to 10.00 p. m. On Saturday from 8 a. m. to 12.30 p. m.

DEMONSTRATION SCHOOLS

Demonstration schools, both elementary and high are carried on in connection with the Summer School. Full information will be found under Description of Courses, p. 22 (high), and p. 25 (elementary).

CONFERENCE HOURS

Conference hours are planned for two special purposes: (1) to give the student an opportunity to confer with the instructor on subjects relative to class work. (2) To serve as an hour during which round table discussions may be held on topics of common interest. Conference hours are arranged by individual instructors at the beginning of the session.

STUDENT HEALTH

The University makes every effort to conserve the health of the students and maintains a hospital physician and competent nurse. The hospital is located on the campus. All cases of illness should be promptly reported to the University physician, Dr. W. A. Griffith, whose office is located in the University Infirmary, phone Berwyn 85-M.

SOCIAL EVENINGS

On Friday evenings during the session informal gatherings of students are held on the campus. The programs are varied. The hours from 8.30 to 11.00 are given over to various kinds of entertainments directed by student committees. These evenings afford agreeable relaxation and enable the students of the Summer School to become well acquainted. Friday evening, July 13th, will be "Eastern Shore Night" and Friday evening, July 20th, "Western Shore Night." In the fifth week of the session the class in Recreational Leadership will present an open-air pageant. Community sings will be held at various times during the session. Students will also be given an opportunity to engage in an evening play hour under the supervision of the Department of Physical Education.

EXCURSIONS

The vicinity of College Park holds a wealth of historic and geologic interests. Saturday excursions will be arranged to Washington, Mount Vernon, Great Falls and other places of interest in the neighborhood of the National Capital. All excursions will be in charge of a general committee of which Mr. F. D. Day is chairman.

SPECIAL LECTURES

Arrangements are made with educators of national reputation to give special lectures from time to time in fields of particular interest to students in the Summer School. Special conference hours are arranged for such lectures in order that students may have an opportunity to meet leaders in their special lines of work. Details are announced in the weekly calendar.

NATIONAL EDUCATION ASSOCIATION

The annual meeting of the National Education Association will be held in Washington the week of June 30-July 5. Attendance at certain meetings of the Association will be designated by instructors as part of the regular work in a number of courses.

8:15—9:15

Agron. 101 S
A. H. 102 S-a
Bot. 102 S
Chem. (Inog.) 101 S
D. H. S. 12
Ed. S. 10
Ed. S. 207
Ed. S. 16
Ed. S. 21
Ed. S. 23
Ed. S. 32
Ed. S. 34
Ed. S. 45
Eng. S. 11
Eng. 122 S
Fren. 101
Fren. 102
Germ. 101
Hist. 102 (M. W. F.)
H. E. 117
Hort. 113 S

11:40—12:30

Agr. Eng. 105 S
Chem. (Org.) 110
Ed. 108 S
Ed. S. 200
Ed. 104 S
Ed. 114 S
Ed. S. 33
Ed. S. 36
Ed. S. 41
Ed. S. 44
Ed. S. 46
Ed. S. 47
Ed. S. 48
Eng. 133 S
F. M. 101-102 S
Geol. 101 S. (M. W. Th.)
H. E. 118
H. E. S. 12 (M. F.)
Hort. S. 11
Math. 3
Math. 5
Plt. Path. 101 S
Zool. 101 S (M. W. F.)

9:15—10:05

Agron. 102 S
A. H. 101 S
Bot. 101 S
Chem. (Inog.) 102 S
Chem. (Org.) 111 S
D. A. S. 11
D. H. S. 13
Econ. 105 S
Ed. 103 S
Ed. 101 S
Ed. 107 S
Ed. S. 201
Ed. S. 205
Ed. S. 17
Ed. S. 25
Ed. S. 30
Ed. S. 35
Ed. S. 38
Ed. S. 40
Eng. S. 12
Eng. 126 S
Hort. S. 12
Hort. 101 S
Hort. 111 S
Math. 1
Math. 4
P. S. 101 S (M. W. F.)

1:30—2:20

Ed. S. 37
Ed. S. 37
Ed. S. 39
Mus. 101 S

2:30 - 3:20

Music 102 S
Time to be arranged
Agron. 104 S
Ed. S. 12
Ed. 203 S
Ed. 202 S
Ed. S. 15
Math. 6
Physics

10:15—11:05

A. E. S. 103
Agr. Engr. 102 S
A. H. 105 S
Chem. (Inog.) 103 S
Chem. (Anal.) 107 S
D. H. S. 11
D. A, 101 S
Ed. S. 13 (M. W. Th.)
Ed. 105 S
Ed. 202 S
Ed. 111 S
Ed. 113 S
Ed. S 22
Ed. S. 24
Ed. S. 31
Ed. S. 34
Ed. S. 35
Ed. S. 43
Eng. 115 S
H. S. S. 11
Hort. 102 S
Hort. 129 S
Math. 2

KEY TO BUILDINGS

L—Morrill Hall.
N—Chemical.
P—Mechanical Engineering.
Q—Civil Engineering.
R—Electrical Engineering.
T—Agricultural.
G—Gymnasium.

DESCRIPTION OF COURSES

AGRICULTURAL ENGINEERING

Gasoline Engines and Automobiles (Agr. Eng. 102 S.).—Two credits. Five lectures and two laboratory periods. 10.15; Lab., M., F., 1.30, T-301. Mr. Carpenter.

A non-technical study of the gasoline engine, and its application to tractors, trucks, and automobiles.

Farm Structures (Agr. Eng. 105 S.). One Credit.—Three lectures. M., W., F., 11.40, T-315. A study of modern types of farm structures, also of farm heating, lighting, water supply and sanitation systems. Mr. Carpenter.

AGRONOMY

Cereal Crops (Agron. 101 S.).—Two credits. Five lectures and two two-hour laboratory periods per week. 8.15; Lab., 1.30, M., W., T-315, T-311. Mr. Eppley.

A study of the history, distribution, culture, and improvement of the cereal crops. The laboratory work is devoted to studies of the plant and grain of the cereal crops, with detailed descriptive study of the grain.

Forage Crops (Agron. 102 S.).—Two credits. Five lectures and two two-hour laboratory periods per week, 9.15; Lab., to be arranged, T-311. Mr. Eppley.

History, distribution, adaptation, culture and uses of forage, pasture, cover and green manure crops. The laboratory periods are largely devoted to the identification and classification of forage plants and seeds and to purity and nativity tests of seeds.

Grading Farm Crops (Agron. 103 S.).—Two credits. Five lectures and two two-hour laboratory periods per week. Prerequisites, Agron. 101 S. or its equivalent. Given in 1925. Mr. Eppley.

This course is planned to satisfy the demand for information on the federal grain standards and the current status of market grades of field crops in general. A careful study is made of the grade requirements and in the laboratory the student gets practice in actually determining the market grades.

Grain Judging (Agron. 104 S.).—One credit. Four two-hour laboratory periods per week. Prerequisites, Agron. 101 S. or its equivalent, or it may be taken in conjunction with Agron. 101 S. Lab., 1.30, to be arranged, T-311. Mr. Eppley.

This course gives practice in judging the cereal crops for milling, seeding and feeding purposes.

ANIMAL HUSBANDRY

Animal Husbandry (A. H. 101 S.).—Two credits. Five lectures and two laboratory periods a week. 9.15; Lab., 130, T., Th., T-301. Mr. Meade.

This course is devoted to the study of the types and breeds of the various classes of farm stock, especial attention being given to the origin, history, characteristics and adaptability of such breeds.

Feeds and Feeding (A. H. 102 S.-A.).—Two credits. Five lectures and two laboratory periods per week. 8.15; Lab., 130, M., W., T-301. Mr. Meade.

Elements of nutrition, source, characteristics and adaptability of the various food stuffs to the several classes of farm livestock. Feeding standards and the calculation and compounding of rations.

Feeds and Feeding (A. H. 102 S.-B.).—Two credit hours. Three lectures and two laboratory periods per week. Offered in 1925. Mr. Meade.

A continuation of A. H. 102 S.-A.

Principles of Breeding (A. H. 104 S.).—Two credits. Five lectures and two laboratory periods per week. Offered in 1925. Mr. Meade.

The course is designed to cover the practical aspects of animal breeding, including heredity, variation, selection, growth, development, systems of breeding and pedigree study.

Swine Production (A. H. 105 S.).—Two credits. Five lectures and two laboratory periods per week. 10.15; Lab., to be arranged, T-315. Mr. Meade.

Types and breeds of swine, care, feeding, breeding, management, economics of swine husbandry, and judging.

Sheep Production (A. H. 108 S.).—Two credits. Five lectures and one laboratory period per week. Offered in 1925. Mr. Meade.

Breeds of sheep; their history, characteristics and adaptability; care, feeding, breeding, and management; grades of wool, judging, and scoring.

BACTERIOLOGY

General Bacteriology (Bact. 101 S.).—Two credits. Three lecture and two laboratory periods. Dr. Welsh. Given in 1925.

A brief history of bacteriology; microscopy; bacteria and their relation to nature; morphology, classification; preparation of culture media; sterilization and disinfection; microscopic and macroscopic examination of bacteria; classification, composition and uses of stains; isolation, cultivation and identification of aerobic and anaerobic bacteria; vital activities of bacteria; bacteria in relation to water, milk, food, soil, and air; pathogens and immunity.

General Bacteriology (Bact. 102 S.).—Two credits. Three lecture and two laboratory periods.

Continuation of Bact. 101. Dr. Welsh. Given in 1925.

BOTANY

General Botany (Bot. 101 S.).—Two credits. Five lectures and two laboratory periods per week. 9.15, Lab., M., W., 1.30, T-309. Mr. Temple.

This elementary course includes a study of struction, life processes and identification of the seed plants. Special attention will be given also to methods of presenting the subject matter to high school students, and

ample opportunity will be afforded for collecting and preserving material for high school study. An occasional nature study field trip will be taken on laboratory time.

General Botany (Bot. 102 S.).—Two credits. Five lectures and two laboratory periods per week. Botany 101 S. not prerequisite.

Mr. Temple. 8.15, Lab., 1.30., T., Th., T-309.

Includes a study of the plant groups, beginning with the lowest forms of plants and continuing through to the seed plants; reproduction in its various forms; origin of the land habit of growth; adjustment of plants to their surroundings; forests of ferns; origin of flowers and seeds. This and the preceding course may be substituted for General Botany of the regular course.

CHEMISTRY

General Chemistry (Inorg. Chem. 101 S.).—Three credits. Five lectures and two laboratory periods per week. 8.15, Lab., 1.20, M., W., N-102. Mr. Gordon.

A study of the non-metals and the fundamental theories and principles of chemistry. One of the main purposes of the course is to develop original work, clear thinking and keen observation. This is accomplished by the project method of teaching.

General Chemistry (Inorg. Chem. 102 S.).—Three credits. Five lectures and two laboratory periods per week. Prerequisites, Inorg. Chem. 101 S. 9.15, Lab.; T., Th., 1.20, N-102. Mr. Gordon.

A continuation of Inorg. Chem. 101 S., in which the theories and methods of study are applied to the non-metals and metals.

Qualitative Analysis (Inorg. Chem. 103 S.).—Two credits. Two lectures and four laboratory periods per week. Prerequisites, Inorg. Chem. 101 S. M., W., 10.15; Lab., to be arranged, N-102. Mr. Wiley.

Systematic qualitative analysis of the more common bases and acids. This course can be taken in parallel with Inorg. Chem, 102 S.

Analytical Chemistry (Anal. Chem. 107 S.).—Three credits. One lecture and four laboratory periods per week. Prerequisites, Inorg. Chem. 101 S.-103 S. F., 10.15; Lab., to be arranged, N-102. Mr. Wiley.

The principal operations of quantitative analysis applied to gravimetric and volumetric methods.

Organic Chemistry (Org. Chem. 110 S.).—Four credits. Five lectures and four laboratory periods per week. Prerequisites, Inorg. Chem. 101 S.-103 S. 11.40; Labs., to be arranged, N-102. Mr. Kharasch or Assistant.

A study of the aliphatic compounds, hydrocarbons, alcohols, aldehydes, fatty acids, Ketones, etc.

Organic Chemistry (Org. Chem. 111 S.).—Four credits. Five lectures and four laboratory periods per week. Prerequisites, Org. Chem. 101 S. 9.15; Lab, to be arranged, N-102. Mr. Kharasch or Assistant.

A study of aromatic compounds or benzene and its derivatives.

DAIRY HUSBANDRY

Dairying (D. H. S. 11).—Two credits. Five lectures and two laboratory periods per week. 10.15; Lab., 1.30, T., Th. Mr. Gamble and Mr. Harvey.

Origin, history, development and characteristics of the dairy breeds. Extent of the daily business and value of products. Composition of milk and Babcock testing. A study of production and handling of milk and milk products on the farm and the care, feeding and management of the farm herd of dairy cattle.

Dairy Production (D. H. S. 12).—Two credits. Five lectures and two laboratory periods per week. 8.15; Lab., 1.30, W., F. Mr. Gamble and Mr. Harvey.

The care, feeding, and management of dairy cattle, including selection of feeds, system of herd feeding, silage, soiling crops and pasture, selection, care and feeding the sires. Dairy herd development and management. Methods of keeping and forms for herd records. Dairy cost accounts. Barn practices which influence quantity and quality in milk.

Farm Dairying (D. H. S. 13).—Two credits. Five lectures and two laboratory periods per week. Prerequisites, D. H. S. 11 or equivalent. 9.15; Lab., 1.30, to be arranged. Mr. Gamble and Mr. Harvey.

How bacteria and dirt get into milk; how they may be kept out; equipping the stable and milk house; surface coolers and pre-cooling; milk-cooling tanks; sterilizers for utensils; washing and sterilizing utensils; dairy farm score cards; composition of milk, butter and cheese and methods of testing.

DRAMATIC ART

Dramatic Art (D. A. 101-S.).—Two credits. Five periods a week. 10.15; L-203. Mr. Kerney.

Study and reading of plays.

Stage Technique (D. A. S. 11).—Two credits. Lectures and practice. 9.15. Mr. Kerney.

Elements of stage technique; construction and painting of scenery; costume design and execution; practice in writing and staging simple pantomimes.

EDUCATION

PRINCIPLES AND HISTORY

Introductory Course in Educational Psychology (Ed. 103-S.).—Two credits. Five lectures per week. 9.15 P, P-200. Miss Marshall.

The psychological principles underlying teaching, including study of mental development, of the learning process, of interest, and of teaching methods.

Advanced Educational Psychology (Ed. 108-S.).—Two credits. Graduate credit by special arrangement. Five lectures per week. Prerequisites, Ed. 103-S, or its equivalent. 11.40; L-305.

Characteristics of original tendencies; the individual's equipment of instincts; forms of behavior; theories as to the order and dates for the appearance and disappearance of original tendencies and their effect upon curricula; value and use of original tendencies; the laws of learning; amount, rate, limit, and permanency of improvement; experiments in rate of improvement; individual differences, causes and effect on school practice.

Elementary Educational Measurements (Ed. S-10.).—Two credits. Five lectures per week. For elementary teachers. 8.15, Q-202. Dr. Cooper.

This course is intended to prepare teachers to carry out in their own schools the measurement program of the state. The aim will be to enable each member of the class to gain an understanding of the tests and their uses and to acquire adequate skill in giving tests, in scoring them, and in the treatment of results. Some attention will be given to remedial measures available to the teacher in cases where she finds her pupils deficient.

Heredity (Ed. S. 12.).—Two credits. Five periods a week. Graduate credit by special arrangement. Time to be arranged. Mr. Kemp.

This course includes consideration of the early views of inheritance of character; the Mendelian principle and the mechanism underlying it; simple application in plants, in animals and in men; variability and individual differences; eugenics; educational implications.

Public Education in the United States (Ed. 101-S.).—Two credits. Five lectures per week. 9.15, L-303. Dr. Blauch.

A course in the development of the theory and practice of public education in the United States. The emphasis will be on elementary education though other phases of American education will be briefly mentioned. An elementary knowledge of the economic and social development of the United States will be of assistance to the student in the course. The following books contain much of the material which will form the basis of the discussion: "Public Education in the United States," by Ellwood P. Cubberly; "Public Education in the South," by Edgar W. Knight.

Rural Sociology and Educational Leadership (Ed. 122-S.).—Two credits. Five lectures per week. Graduate credit by special arrangement. Offered in 1925.

The rural community—nature, history, structure, types; the community survey; present tendencies, needs the problems of rural life; the village and its place in American social organization; special functions of the school and other institutions in relation to the needs of the rural group. This course is designed especially for persons who expect to be called upon to assist in shaping educational and other community programs for rural people.

Practicum in Rural Sociology (Ed. 203-S.).—Two to four credits. Credit depends upon the amount and character of work done. Open to graduate students only. Prerequisites, Ed. 128 S. Time to be arranged. Mr. Cotterman.

Essentially a field course. The work may be done during the winter in the community in which the student may be teaching. Each student is required to make a social survey of some community and submit a satisfactory report of the same. Students electing this work must report for conferences both before the work is undertaken and during the time the work is in progress. At least one field conference must be arranged with the instructor.

Educational Sociology (Ed. 107-S.).—Two credits. Five lectures per week. Graduate credit by special arrangement. 9.15, T-211. Mr. Cotterman.

The sociological foundation of education; educational objectives in terms of group needs; educational institutions; the program of studies; need for special organizations; possibilities of the special group leader in adult education; community program of education; education and nationalism.

Principles of Commercial Education (Ed. S. 41.).—Two credits. Five periods per week. Not given in 1924.

The rapid development of interest in commercial education in this country during the past twenty years had led to the establishment of courses in secondary schools and colleges. This in turn has led to a demand for qualified teachers of commercial education. This course aims to give the teacher of commercial branches the broad vocational outlook upon his subject and to acquaint him with the pedagogical principles underlying it. Consideration will be given to the following topics: the essentials and value of business education; the curriculum in a secondary school; a survey of subject matter comprising the curriculum, such as arithmetic, bookkeeping, English, stenography and typewriting; and special problems in commercial education.

Vocational Guidance (Ed. S. 42).—Two credits. Five periods per week. Not given in 1924.

This course is designed for teachers, especially junior high school, high school, and vocational teachers, but may be taken by other persons interested in the vocational guidance of youth. It includes: a brief survey of history, the literature, and the economic and social signficance of vocational guidance; a study of the conditions under which children leave school; the movement for employment supervision, vocational analysis, vocational surveys and other sources of vocational information; special attention to vocational guidance values in the regular school curriculum, life career classes, self analysis, tests and the treatment of results, counselling, try-out courses, the relation of vocational to moral and educational guidance, the organization and administration of guidance and placement work, the cooperation of the school with other agencies. Instruction will include lectures, text, assigned reading, discussion and projects.

Boy Leadership and Scouting Course for Men (Ed. S-13.).—One credit. Three periods a week. M., W., & Th. 10.15, L-303. Mr. Bradley.

Lectures will cover the theory of Scouting, its relation to the community,, its moral and educational principles, etc. Some time will be devoted to

the practical work in the technique of scouting. Among the assigned topics will be: The origin and development of the scout movement; relationships; the community's boys; the appeal of scouting; the school and scouting; essential factors; boys and boy leaders.

Problems in Agricultural and Rural Education (Ed. 202-S.) Two to three credits. Credit depends upon the amount and character of work done. Five lectures per week. Graduate students only. Time to be arranged. Mr. Cotterman.

Major problems of agricultural and rural education, particularly in the fields of vocational education, extension of adult education and higher education. Special projects, assigned readings and reports.

Advanced Educational and Mental Measurements (Ed. S-200).—Two credits. Five lectures a week. For supervisors, actual and prospective; for educational counselors; and for high school teachers. Not open to undergraduate students except by permission. Dr. Cooper. 11.40, Q-202.

This course will deal principally with educational tests and will treat their selection, adaptation, construction, standardation uses, and limitations.

A feature of the course will be the use of group mental tests and the significance of results.

The class will be limited to 30 members.

Educational Finance (Ed. S-208).—Two credits. Five lectures a week. 9.15. Not given in 1924.

Limited to graduate students and those holding administrative positions.

This course will deal with (a) Sources of revenue, levies, and apportionment from the larger to the smaller political units; (b) the school budget—its preparation, use, and abuse; and (c) special funds and bond issues.

Adolescent Characteristics (Ed. S-201).—Two credits. Five lectures a week. For graduates only. 9.15, Q-202. Mr. Klingaman.

Physical, mental and social characteristics of adolescence with special reference to educational organization and procedure.

Theory and Development of Vocational Education (Ed. S-204).—Two credits. Five lectures per week. Open to graduate students only. Offered in 1925. Mr. Proffitt.

Vocational education the earliest type of formal training; principles and objectives underlying training during the early development of civilization; early systems of organized vocational training, their methods and objectives; analysis of conditions underlying the social demand for vocational education; objectives of vocational education in the public schools; types of vocational education, their aims and functions; surveys of occupations and needs of workers, a guide for the establishment of vocational courses; organization of vocational schools; state and national interest in vocational education; recent legislation; the planning of vocational courses.

State School Systems (Ed. S-206).—Two or three credits. Lectures and seminar. For graduates only. Given in 1925.

A comparative study of state school systems: their evolution, organization, and administration.

Problems in American Education (Ed. S-207).—Two or three credits. Lectures and seminar. For graduates only. 8.15, R-100. Dr. Blauch.

A survey of current issues and movements: school finance, private schools, religious education and the public schools, civic objectives, the Federal government and education, and other vital problems.

SECONDARY EDUCATION

Secondary Education in the United States (Ed. S-14).—Two credits. Five lectures per week. Graduate credit by special arrangement. Offered in 1925.

A course in the development and present status of secondary education in the United States. The following and similar topics will be considered: outline of development from colonial days to the present time; evolution of the legal status of public secondary education; typical state systems of secondary education compared with secondary education in Maryland; the relation of secondary education to higher education; recent tendencies, the junior high school, the junior college; evolution of the curriculum of secondary education; private secondary education.

The purpose of the course is to acquaint the student with a body of knowledge which is fundamental to a thorough understanding of secondary education as it is organized and administered in the United States. The development of secondary education in Maryland will be given attention. The relation between secondary education and American social and economic movements will be emphasized.

Methods of Teaching High School Subjects (Ed. 104-S).—Two credits. Five lectures per week. 11.40, R-100. Mr. Klingaman.

This course treats of the essentials of methods common to the teaching of all high school subjects. Such problems as the following will be considered: The high school pupil; discipline; economy of classroom procedure; selection of subject matter; types of learning involved in high school subjects; the principles of drill; inductive and deductive methods; the question as a factor of instruction; directed learning; the project method and the socialized recitation; tests of achievement, the marking of pupils. Special atention will be given to the preparation and critical evaluation of lesson plans.

Principles of Secondary Education (Ed. 105-S).—Two credits. Graduate credit by special arrangement. Five lectures per week. 10.15, T-309. Dr. Small.

This course deals mainly with the social foundations of secondary education and the educational values of the several subjects of the curriculum. Physical and mental traits of high school pupils; individual differences; characteristics of the high school population; comparative secondary education; the objectives of secondary education; and reorganization for attaining main objectives are other topics treated.

Organization and Administration of High Schools (Ed. S. 202).—Three credit hours. Five lectures per week. Open to graduate students only. 10.15, R-100. Mr. Klingaman.

Organization, legal status, and control of the state school system and the relation of the high school to the state and other administrative units; standards for the physical plant and equipment; the preparation, selection, promotion, and supervision of teachers; text books; significant movements, such as the junior high school; tests and measurements, cooperative agencies, continuation work; standards for judging instruction; school records and statistics; courses of study; the hygiene of the high school; the progress of pupils—acceleration, retardation, and elimination.

Administrative Problems of the High School (Ed. S. 203).—Three credit hours. Five lectures per week. Open to graduate students only. Offered in 1925.

Daily programs; type programs; extra curricular activities; publicity; promotions; working systems; classification of pupils; records and reports; relations with parents and the community; the tone of the school; the school library; the internal government of the school and other practical problems of high school principles which arise in administrative work.

Five lectures a week. For graduates only. **Not given in 1924.**

The High School and Civic Education (Ed. S-205.—Two credits. Reasonable objectives in knowledge and attitudes with respect to law, government and social responsibility; the role of administration and instruction in promoting these objectives; special attention to content and methods in civics and economics.

Chemistry in the High School (Ed. S-15).—Two credits. Graduate credit by special arrangement. Five periods a week. Time to be arranged. Dr. Gordon.

The most recent developments in chemical education with application to chemistry in the high school. The content of the course; minimum essentials in equipment and apparatus; use and care of materials; methods of instruction.

This course is based upon "The Standard Minimum High School Course in Chemistry," prepared by the Committee on Chemical Education of the American Chemical Society in cooperation with committees of teachers of chemistry in all parts of the country.

Methods of English Composition in High School (Ed. S-16).—Two credits. Graduate credit by special arrangement. Five lectures per week. 8.15, L-302. Miss Zouck.

Objectives in the teaching of English in secondary schools; selection of subject matter; state requirements and state courses of study; psychological principles underlying the teaching of English in secondary schools; the organization of materials; special methods and type lessons in teaching different forms of composition.

Methods of Teaching Literature in High Schools (Ed. S-17).—Two credits. Graduate credit by special arrangement. Five lectures per week. 9.15, L-305. Miss Zouck.

Objectives in the teaching of literature in the secondary schools; selection of subject matter; state requirements and state courses of study; the psychological principles underlying the teaching of literature in the secondary schools; the organization of materials; special methods; type lessons.

Methods in High School History (Ed. 111-S.).—Two credits. Graduate credit by special arrangement. Five lectures per week. 10.15, L-302. Miss Zouck.

Objectives of history and civics in secondary schools; selection of subject matter; parallel readings; state requirements and state courses of study; psychological principles underlying the teaching of history and civics; organization of material devices for motivating and socializing work maintenance of the citizenship objective; note book and other necessary auxiliary work.

Methods in High School Sciences (Ed. 114-S.).—Two credits. Graduate credit by special arrangement. Five lectures per week. 11.40, F-211. Miss Houck.

Objectives of science in secondary schools; selection of subject matter; state requirements and state courses of study; psychological principles underlying the teaching of science in secondary schools; organization of materials for instruction; methods of the class period; lesson plans; preparation and organization of laboratory instruction; note books.

Note: This course in 1924 will be concerned chiefly with General Science and will be appropriate for teachers of junior high school science. Students planning to take this course are asked to bring with them any texts in high school science they may have.

Methods in High School Mathematics (Ed. 113 S.).—Two credit hours. Graduate credit by special arrangement. Five lectures per week. 10.15, L-202. Miss Houck.

Objectives of mathematics in secondary schools; selection of subject matter; state requirements and state courses of study; proposed reorganizations; psychological principles underlying the teaching of mathematics in secondary schools; lesson plans and devices for motivating work.

Methods in Secondary Vocational Home Economics (Ed. 132 S.).—Three credit hours. Graduate credit by special arrangement. Five lectures per week. Miss McNaughton. Given in 1925.

Survey of vocational movement; relation of home economics to other subjects of the curriculum; aims and ideals of home economics; determination and organization of subject matter; classroom management; types of lesson; lesson plans; equipment; use of illustrative material; text and reference books; correlation of school and home work.

Practice and Teaching of Home Management in High Schools (Ed. S., 18).—Graduate credit by special arrangement. Number periods per week will depend upon type of work under consideration. Miss McNaughton. Given in 1925.

Methods in High School Latin (Ed. S. 21).—Two credits. Five periods per week. 8.15, T-315. Miss Sidwell.

Objectives of Latin in the secondary school; content of the course of study in Latin, including the state requirements and state course of study; study of texts; methods of procedure; lesson plans; observation.

High School Music—A. (Ed. S. 22).—Two credits. Five periods a week. 10.15, Auditorium. Miss McNutt.

This course is for beginners. It will consist largely in making members of the class familiar, through practice in singing, with a repertory of vocal music suitable for the first and second year pupils in the Maryland high schools; giving them a basis on which to appreciate music; the development of lesson plans in connection with actual class demonstration; training for the best singing voice of each member the class, and practice teaching and directing.

High School Music—B. (Ed. S. 23).—Two credits. Five periods a week. Prerequisite, Ed. S. 22 or equivalent. 8.15, Auditorium. Miss McNutt.

This course will consist of a thorough study of the Tentative Course in Music, issued in bulletin form, October, 1923, by the Maryland Department of Education. A study will be made of the aims, procedure and attainments as set forth in this bulletin. A study will also be made of the administrative features of high school music study as given in Maryland High School Standards, issued by the State Department in February, 1923. Each student will be required to make a critical study of music appropriate for use in the different high school classes, taking into account age of pupils, stage of voice development, practical uses which may be made of the music studied and correlation of music with other high school interests and activities. A definite study of the uses of the phonograph as outlined in the Tentative Course will be made, with some of the most important facts of musical history.

The following books will be used as text references: Music Notation and Terminology—Gherkens; The Child Voice—Howard; Education Through Music—Farnsworth; Progressive Series of History of Music—Forsyth; Music Appreciation with the Victrola—Frances Elliot Clark.

Physical Education for High School Boys (Ed. S. 24).—Two credits. Five periods a week. 10.15, Gymnasium. Mr. Landis.

The state law and steps towards its realization; physical, social and recreational objectives; hygienic considerations; organization of physical education and athletics in the small high school; state and county programs of activities; equipment and paraphernalia; the granting of letters and other forms of recognition; publicity for athletics; the high school as a recreational center.

In connection with this course, a supplementary course in coaching high school athletics will be offered for which an additional credit will be given.

Physical Education for High School Girls (Ed. S. 25).—Two credits. Five periods a week. 9.15, Gymnasium. Miss Boyle.

The state law and steps towards its realization; physical, social and recreational objectives; physical limitations of adolescent girls; state and county programs of activities.

Note: Students taking physical education courses should be supplied with tennis shoes and comfortable uniforms. Girls' uniform preferably bloomers and middie blouse.

DEMONSTRATION HIGH SCHOOL

The Director, Mrs. Temple, and other instructors.

In cooperation with the Hyattsville High School and the school authorities of Prince George's County, a demonstration high school will be maintained for demonstration purposes in connection with the Summer School. This will furnish a limited opportunity for observation. For the summer 1924, it will be limited to the beginning pupils in high school and enrollment will be strictly limited. The daily program will extend from 9 a. m. to 12 m., with optional sports and games in the afternoon. Classes will be conducted in Latin and Mathematics and possibly one other high school subject. Music and physical training will be a part of the daily program.

ELEMENTARY EDUCATION

Rural School Organization, Management and Community Relationship (Ed. S. 30).—Two credits. Five lectures per week. 9.15, L-107. Mr. Orem.

This course deals with such topics as equipment, records, and reports; school government, school law; preparation for opening of school; the daily program; decorating, lighting, ventilating, seating, heating, janitor work; the completion and organization of work; continuous employment of pupils; discipline; progressional ethics; phases of consolidation and community relationships.

School and Class Management in Elementary Schools (Ed. S. 31).—Two credit hours. Five lectures per week. 10.15, L-107. Mr. Orem.

This course is designed to meet the needs of principals and prospective principals of elementary schools. It deals with such topics as selection of teachers; preparation for the opening of school; requisition of supplies, daily programs and other organization problems; school government; the arrangement of classrooms to lighting, seating, equipment; and such other administrative problems as the developing of an esprit de corps on the part of the staff; the professional growth of teachers in service; professional ethics; the promotion of drives; the principal's duty in regard to records and reports; the promotion of pupils; school projects and community relationships.

Methods in Reading and Language in the Primary Grades (Ed. S. 32).—Two credits. Five lectures a week. 8.15, L-107. Observation. Miss Crim.

Problems, aims, methods and materials of instruction in reading and language in the first four grades of the Elementary School, with special application to rural schools. Subject matter is outlined and evaluated. The mechanics of reading, oral reading, reading for interpretation of thought (silent reading), oral and written language (including poems, pictures and stories). Emphasis will be placed upon proper study habits. Systematic observation in the demonstration school, critiques and lesson plans.

Primary Methods in Arithmetic and Spelling (Ed. S. 33).—Two credits. Five lectures a week and observation. Lectures, observation. 11.40, L-300. Miss Crim.

Problems, aims, methods and materials of instruction in arithmetic, geography and history in the first four grades of the Elementary School, with special application to the rural schools. Subject matter is outlined and evaluated. One half of the time will be devoted to arithmetic, the other half to history and geography. Emphasis will be placed upon proper study habits. Systematic observation in the demonstration school, critiques and lesson plans.

Theory and Practice of Teaching in Upper Elementary Grades (Ed. S. 34).—Two credits. Five periods per week. Lecture, 8.15, L-305; Observation, 10.15. Miss Marshall.

This course is designed for persons who have had no or little teaching experience and embraces the study of the problems, aims, methods, and materials of instruction of the last four grades of the elementary school, with emphasis upon the needs of the rural school. Lectures, required readings, observation of lessons in demonstration school, critiques and lesson planning are required.

Elementary School Geography (Ed. S. 35).—Two credits. Five lectures per week. First section, 9.15; Second section, 10.15, P-207. Miss Wilson.

A content course in geography designed primarily for teachers of geography in the elementary schools and emphasizing to some extent problems, aims, methods and materials of teaching the subject.

Elementary School History (Ed. S. 36).—Two credits. Five lectures per week. 11.40, P-207. Miss Wilson.

A content course dealing with the essentials of American history, with the consideration of problems, aims, methods and materials of teaching the same in the elementary school.

Elementary School Mathematics (Ed. S. 37).—Two credits. Five lectures per week. 1.30, L-305. Miss Marshall.

A content course in arithmetic covering the essential features of the subject, and embracing a study of the problems, aims, methods and materials of teaching arithmetic in the upper grades of the elementary school.

Elementary School Agriculture and Project Work (Ed. S. 38).—Two credits. Five lectures per week. 9.15, T-315. Mr. Day.

This is essentially a content course dealing with the underlying principles of agriculture, with special consideration of the purposes, problems, motivation, management, methods and materials of teaching agriculture in elementary schools; the organization of project activities and project supervision; school exhibits and special classroom projects.

Nature Study: Plant Life (Ed. S. 39).—One credit hour. One lecture and two laboratory periods per week. Lecture, 1.30 Tues. Lab. 2.30, T., 1.30, W. T.-315. Mr. Norton.

A content course designed primarily for elementary teachers, consisting chiefly of field study of trees, flowers, weeds and other forms of land and water plant life and inanimate nature; their relations to the conditions under which they live; the use of such studies to inspire an interest in the natural human environment and in more advanced work in science.

Elementary School Music—A. (Ed. S. 40).—Two credits. Five periods a week. 9.15, Auditorium. Mrs. Haring.

This course is designed for those who have had no special preparation for teaching elementary school music. It is based upon the "Tentative Course in Elementary Music for the Maryland Schools," and is devoted chiefly to the work of the first three grades: aims, material, procedure and expected outcome. Observation in the demonstration school.

Elementary School Music—B. (Ed. S. 41).—Two credit hours. Five periods per week. 11.40, Auditorium. Mrs. Haring.

This course is designed for those who have had previous training or experience in teaching elementary school music, equivalent at least to Ed. S. 40. It is devoted especially to the work of the last four grades of the elementary schools.

Notes: (1) Those intending to pursue either of these courses should provide themselves in advance with the "Tentative Course in Elementary School Music for the Maryland Schools," and become familiar with its more important features.

(2) Students interested in music and in the development of school orchestras should not fail to bring with them the instruments which they themselves play, as the development of an orchestra in Summer School will be a project of this class.

Elements of School Hygiene (Ed. S. 43).—Two credit hours. Five periods per week. 10.15, T-211. Miss Wedgwood.

This course covers the elements of health and disease necessary for the teacher. It includes the principles of hygiene, hygiene of the school plant, nature and control of communicable diseases, health inspection, emergencies and first aid.

Methods in Health Teaching (Ed. S. 44).—Two credit hours. Five periods per week. 11.40, L-207. Miss Wedgwood.

The objectives of health teaching in the elementary school; content for the several grades; methods, lesson plans; observation in demonstration school.

Fine and Manual Arts for the Primary Grades—A. (Ed. S. 45).—Two credits. Five periods a week. 8.15, P-207. Miss Aiken.

This course is designed especially for teachers in village and rural schools. It covers the work of the first three grades: aims, material, procedure and expected outcome. Observation in the demonstration school.

Fine and Manual Arts in the Upper Grades (Ed. S. 46).—Two credits. Five periods a week. 11.40, L-203. Miss Aiken.

Similar in purpose and scope to Ed. S. 42, but for the last four grades of the elementary school.

Physical Education for the Elementary School (Ed. S. 47).—Two credits. Five periods per week. 11.40, Gymnasium. Mr. Landis.

This course deals with the principles and practice of Physical Education in the Elementary Schools and includes nature and meaning of play; practice in playing games; and practice in the instruction of games for children in the primary grades.

Physical Education and Recreational Leadership in Rural Schools (Ed. S. 48).—Two credit hours. Five lectures per week. Prerequisites, Ed. S. 39 or equivalent. 8.15, Gym. Miss Boyle.

Origin of the play movement; evolution of the play movement in the United States; play at schools—urban and rural; stressing particularly theory of recreation; purposes of organized play, pageants, and community recreational activities.

Note: See note, p. 22, relative to uniforms.

DEMONSTRATION SCHOOL FOR ELEMENTARY GRADES

In cooperation with the College Park Home and School Association and the school officials of Prince George's County, an elementary school, essentially rural in character, is maintained for demonstration purposes. It includes grades one to six, inclusive.

The school serves as a vacation school to the pupils of the College Park School and other communities, and affords them an opportunity to make up deficiencies due to sickness and other causes and to review and supplement instruction received during the regular school year. The school is free, but only a limited number of pupils may be accepted. Application for entrance to the school should be in the hands of the Director not later than a week prior to its opening.

Through the courtesy of its executive committee, students in education are given an opportunity to attend one meeting of the College Park Home and School Association.

ENGLISH

Composition and Rhetoric (Eng. S. 11).—Two credits. Five lectures per week. Accepted as the equivalent of the first one-third of "Freshman English" (Eng. 101). 8.15, L-203. Mr. Ericson.

Parts, principles, and conventions of effective writing, particularly as relating to exposition. Short themes.

Descriptive Grammar (Eng. S. 12).—Two credits. Five lectures per week. Accepted as the second one-third of "Freshman English" (Eng. 101). 9.15, L-302. Miss Harman.

Sentence analysis, inflection, proper usage, idiomatic forms. Daily class papers.

The Seventeenth Century in English Literature (Eng. 133 S.).—Two credits. Five lectures per week. 11.40, L-302. Mr. Ericson.

A survey of the literature of this period as an outgrowth of the social and religious influences of the time. Collateral reading from Donne, Herbert, Taylor, Crashaw, Browne, Dryden, and others.

Shakespeare (Eng. 115 S.).—Two credits. Five lectures per week. 10.15, L-300. Miss Harman.

An intensive study of selected plays.

The Novel (Eng. 122 S.).—Two credits. Five lectures per week. 8.15, L-300. Dr. House.

Lectures on the principles of narrative structure and style. Class reviews of selected novels, chiefly from English and American sources.

Tennyson (Eng. 126 S.).—Two credits. Five lectures per week. 9.15, L-300. Dr. House.

Lectures on the art of poetry, illustrated by readings from Tennyson's lyric and narrative verse.

FARM MANAGEMENT AND FARM ACCOUNTING

Farm Management (F. M. 101-102 S.).—Two credits. Five lectures and two laboratory periods per week. 11.40, Lab.; 1.30, M. F., T-212. Mr. Taliaferro.

A study of the business of farming from the standpoint of the individual farmer. This course aims to connect the principles and practice which the student has acquired in technical courses and to apply them to the development of a successful farm business.

Farm Accounting (A. E. S. 103).—Two credits. Five lectures and two laboratory periods per week. 10.15, Lab.; 1.30, T. Th., T-212. Mr. Taliaferro.

An introduction to the principles involved in the keeping of farm records and accounts, with special reference to cost accounting and the analysis of the farm business.

GEOLOGY

Elements of Geology (Geol. 101 S.).—Two credits. Three lectures and two laboratory periods. 11.40, M. W. Th. Lab.; 1.30, T. Th. Mr. Bruce.

The principles of physical geology. Special study of rocks, soils, topographic forms; an outline of historical geology.

INDUSTRIAL ARTS

Mechanical Drawing (Dr. 101).—One credit. Three laboratory periods per week. Given in 1925. Mr. Hoshall.

Practice in plain lettering; use of the instruments; projection and simple working drawings; the plates upon completion being inclosed in covers properly titled by the students.

Woodworking (Shop 101 S.).—One credit. Three laboratory periods per week. Given in 1925. Mr. Hoshall.

Use and care of wood-working tools; exercises in planing, mortising, and tennoning, and laying out work from blue prints.

Forging (Shop 102 S.).—One credit. Three laboratory periods per week. Given in 1925. Mr. Hoshall.

Forging, iron and steel; welding; the making of steel tools.

HOME ECONOMICS

Essentials of Home Economics (H. E. S. 11).—Two credits. Credit cannot be used toward a degree by students majoring in Home Economics or Home Economics Education. Five lecture periods per week. 10.15, T-219.

This course will be handled by a number of specialists. The course as a whole will be in charge of Miss Mount.

This course is designed for those who wish a general knowledge of home economics and for teachers of home economics who wish special work dealing with the recent developments in certain subjects. The course will consist of the following units:

(a) Child Care and Welfare.
(b) Accounts and Budget Making.
(c) Nutrition and Health.
(d) Principles of Correct Dress.
(e) Millinery.
(f) Fundamentals of Garment Construction; use of sewing machine attachments; making of paper dress forms; use of commercial pattern.
(g) The Art of Making the Home Attractive; curtains and hangings; refinishing of furniture; and arrangements of furniture, house furnishings, pictures and wall finishes.

Composition and Design (H. E. 117).—Two credits. Three three-hour laboratory periods per week. 8.15, M. W. Th., T-219. Mrs. McFarland.

Space division and space relation; color schemes and exercises; original designs in which lines, values and colors are put together to produce fine harmony.

Costume Design (H. E. 118).—Two credits. Two lectures and two three-hour laboratory periods a week. Prerequisite, H. E. 117. T. Td. 11.40, Lab. T. Th. 1.30. T-219. Mrs. McFarland and Assistant.

Appropriate dress, application of color, harmony and proportion of parts to costumes designed in ink and water color; history of costume.

Cookery (H. E. S. 12).—Two credits. Two lectures and two three-hour laboratory periods per week. M. F. 11.40, Lab. M. F. 1.30. T-219. Laboratories to be arranged. Credit cannot be used toward a degree by students majoring in Home Economics or Home Economics Education. Mrs. Welsh and Assistants.

This course is designed for students who have had no chemistry and who wish to have a general knowledge of the principles of cookery and the service of foods.

HORTICULTURE

General Horticulture (Hort. S. 11).—Two credits. Five lectures and two laboratory periods per week. 11.40, Lab.; 1.30, M. F., Greenhouse. Mr. Geise, Mr. Thurston, and Mr. Whitehouse.

In this course special topics in fruit growing, vegetable gardening,

landscape and floriculture are discussed. Its aim is to present the general field of horticulture to one who has not studied any branch of the subject before.

Landscape and Floriculture (Hort. S. 12).—Two credits. Five lectures and two laboratory periods. 9.15, T. Th; 1.30, Greenhouse. Mr. Thurston.

The principles of landscape gardening and their application to the improvement of home grounds. The propagation and cultivation of greenhouse plants.

Elementary Pomology (Hort. 101-S.).—Two credits. Five lectures and two laboratory periods per week. 9.15, Lab., T. Td., Greenhouse. Mr. Whitehouse.

This course discusses the general problems incident to the planting, management and marketing of such fruit crops as apples, peaches, pears, plums, cherries, quinces and small fruits. The principles of plant propagation as applied to fruit growing are discussed.

Commercial Fruit Growing (Hort. 102-S.).—Two credits. Five lectures and two laboratory periods per week. 10.15, 1.30, W. F. Greenhouse. Mr. Whitehouse.

The proper management of commercial orchards in Maryland. Special attention is given to orchard economics.

Elementary Vegetable Gardening (Hort. 111-S.).—Five credits. Five lectures and two laboratory periods per week. 9.15, Lab.; T. Th., Greenhouse. Mr. Geise.

This course includes a study of the different types of vegetable gardening; methods of propagation; construction and management of hot beds and cold frames; growing early vegetable plants under glass, and the growing and management of individual gardens.

Commercial Vegetable Gardening (Hort. 113-S.).—Two credits. Five lectures and two laboratory periods per week. 8.15, Lab., W. F. Greenhouse. Mr. Geise.

A study of the methods used in commercial vegetable production. Trips are made to commercial gardens and various other places of interest.

Garden Flowers (Hort. 129-S.).—Two credits. Five lectures and two laboratory periods per week. 10.15, M. F.; 1.30, Greenhouse. Mr. Thurston.

Plants for garden use; the various species of annuals; herbaceous perennial bulbs; bedding plants and roses, and their cultural requirements.

MATHEMATICS

Algebra (Math. 1).—Two credits. Five periods a week. Dr. Taliaferro or Assistants. 9.15, P-200.

Quadratic equations, simultaneous equations, progressions, graphs, logarithms, etc.

Advanced Algebra (Math. 2).—Two credits. Five lectures or recitations per week. 10.15, P-200. Dr. Taliaferro or Assistant.

Elementary theory of equations. Permutations and combinations, binomial theorem, etc.

Solid Geometry (Math. 3).—Two credits. Five lectures or recitations per week. 11.40, P-200. Dr. Taliaferro or Assistants.

A discussion of the fundamentals of the Geometry of Space.

Plane Trigonometry (Math. 4).—Two credits. Five lectures or recitations per week. 9.15, P-200. Prerequiste, Math. 1. Dr. Taliaferro or Assistants.

Trigonometry functions. Development of formulas and their application to the solution of trigonometric equations and right and oblique triangles.

Plane Analytic Geometry (Math. 5).—Two credits. Five lectures or recitations per week. Prerequisite, Math. 1 and 3. 11.40, P-200. Dr. Taliaferro or Assistants.

A discussion of the loci of equations in two variables, the straight line, the circle and the parabola.

Calculus (Math. 6).—Three credits. Ten lectures or recitations per week. To be arranged. Dr. Taliaferro or Assistants.

A discussion of the elements of calculus and the technique of differentiation and integration.

Note: Not more than fifteen hours will be given. If more than fifteen hours are applied for, the instructor will select the courses meeting the needs of the greatest number of students.

MODERN LANGUAGES

Germ. 101.—Elementary German. Two credits. Five recitations.

The elements of German grammar; reading of easy prose; oral practice. 8.15, L-305. Mr. Kramer.

Fren. 101.—Elementary French. Two credit hours. Five recitations.

Drill upon pronunciation; elements of grammar; composition, conversation and easy translation. 8.15, L-305. Mr. Kramer.

Fren. 102.—Second year French. Two or three credit hours. Five recitations.

Study of grammar continued; composition, conversation and translation. Texts selected from modern prose. 8.15, L-303. Dr. Zucker.

Note: Of the beginners' courses only one will be given, the one for which the greater number of students apply.

MUSIC

History of Music (Music 101 S.).—Two credits. Five periods a week. 1.30, Auditorium. Mr. Goodyear.

A comprehensive study of the development of music from the beginning to modern times. The early church influence. The ancient composers; those of the Middle Ages; and those of modern times.

Music Appreciation (Music 102 S.)—One credit. Three periods a week. 2.30, Auditorium. Mr. Goodyear.

A study of all types of classical music, with a view to developing the ability to listen and enjoy. Lecture recitals will be presented with the aid of performers and records. A study of the orchestra, the instruments that it employs. The development of the symphony and orchestra instruments for solo performance. The development of the opera and oratorio. Great singers of the past and present.

PLANT PATHOLOGY

General Plant Pathology (Plt. Path. 101 S.).—Two credits. Five lectures and two laboratory periods per week. 11.40, Lab., to be arranged, T-309. Mr. Temple.

This course gives training in the identification and the control of the diseases of fruits, field crops, and trunk crops. It is the same course that is given during the College year.

Advanced Plant Pathology (Plt. Path. 105 S.).—Credit according to the time devoted to the subject. Given in 1925. Lectures, conferences and laboratory work. Undergraduate and graduate. Mr. Temple.

Opportunity to specialize in plant pathology in general or in the pathology of particular groups of plants; a study of the reports of original investigations; familiarity with and practice in pathological technique; special problems.

PHYSICS

Mechanics and Heat (Physics S. 11).—Three credits. Five lectures and two laboratory periods per week. Prerequisite, Math. 101. To be arranged, R-100. Mr. Eichlin.

Magnetism and Electricity (Physics S. 12).—Three credits. Five lectures (or recitations) and two laboratory periods per week. Prerequqisite, Math. 101. To be arranged, R-100. Mr. Eichlin.

Light and Sound (Physics S. 13). Five lectures (or recitations) and two laboratory periods per week. Prerequisite, Math. 101. To be arranged, R-100.

These courses consist of discussions in the class room and applications in the laboratory of the laws of physical phenomena.

The above courses will be accepted as the equivalent of Physics 101.

Note. Not all the above courses will be offered simultaneously. Students will make choice at the opening of the session. The will of the majority will rule.

PUBLIC SPEAKING

Oral Reading (P. S. 101 S.).—One credit. Three periods per week. M., W., F., 9.15, L-203. Mr. Richardson.

Study of the technic of vocal expression. The oral interpretation of literary masterpieces. Study of methods of teaching oral English in the schools.

Note. As in former years, special courses in Public Speaking will be arranged at the opening of the session to meet the needs of the students who enroll.

THE SOCIAL SCIENCES

Economics

General Economics (Econ. 105 S.).—Two credits. Five hours a week. 9.15, L-202. Dr. Thompson.

General principles of economics; production, exchange, distribution and consumption of wealth; the monetary system; public finance; land and labor problems; monopolies, taxation and other similar topics.

History

American Colonial History (His. 102).—Two credits. Three lectures and library assignments. Given in 1925. Mr. Schulz.

A study of the political, economic and social conditions of the American colonies from the setlement at Jamestown to the adoption of the Constiution.

American Civil War and Reconstruction (His. 103).—Two credits. Three lectures and library assignments. M., W., F., 8.15, L-202. Mr. Schulz.

The object of the course is to trace the economics and social forces constituting the background of the Civil War, and to develop the political theories of Reconstruction.

Sociology

Elements of Social Science (Soc. 101 B.).—Two credits. Five lectures per week. Accepted as the equivalent of second half of the regular course in Elements of Social Science. (Soc. Sci. 101 A). Given in 1925. Dr. Lee.

This course deals with the basis and nature of society: the process of social evolution; the economic organization of society; the rise of government and the state as an institution; and the nature and extent of social control of man's activities. It forms the foundation upon which the principles of economics, the principles of sociology, and the science of government are based.

ZOOLOGY

General Zoology (Zool. 101 S.).—Two credits. Three lectures and three two-hour laboratory periods per week. M., W., F., 11.40; M., W., F., 1.30, L-107. Miss Anderson.

The basic principles of animal biology are emphasized rather than the morphology of selected types.

Organic Evolution (Zool. 130).—Two credits. Lectures and assigned readings with reports. Prerequisites, one year of college biology, or the equivalent, one half of which must be Zoology. Mr. Pierson. Open to graduates and advanced undergraduates. To be arranged.

The object of this course is to present some of the biological data on which the theory of evolution rests.